What is claimed is:

1. A composition for increasing the melanin content of mammalian melanocytes comprising:

a) an effective amount of one or more compounds selected from the group consisting of:

(i) bicyclic-monoterpene diols,

(ii) pharmaceutically acceptable salts of (i), and

(iii) prodrugs of (i); and

b) a suitable carrier.

2. A method for increasing the melanin content of mammalian melanocytes comprising administering to said melanocytes an effective amount of the composition of Claim 1.

3. A composition for treating a skin proliferative disorder or a disorder of keratinization comprising:

a) an effective amount of one or more compounds selected from the group consisting of:

(i) bicyclic-monoterpene diols,

(ii) pharmaceutically acceptable salts of (i), and

(iii) prodrugs of (i); and

b) a suitable carrier.

4. A method for treating a skin proliferative disorder or a disorder of keratinization in a mammal comprising administering to a mammal in need of such treatment an effective amount of the composition of Claim 3.

5. A composition for preventing a skin proliferative disorder or a disorder of keratinization comprising:

a) an effective amount of one or more compounds selected from the group consisting of:

(i) bicyclic-monoterpene diols,

(ii) pharmaceutically acceptable salts of (i), and

(iii) prodrugs of (i); and

b) a suitable carrier.

6. A method for preventing a skin proliferative disorder or a disorder of keratinization in a mammal comprising administering to a mammal in need of such preventive treatment an effective amount of the composition of Claim 5.

7. A composition for altering or restoring pigmentation in mammalian skin, hair, wool or fur comprising:

a) an effective amount of one or more compounds selected from the group consisting of:

(i) bicyclic-monoterpene diols,

(ii) pharmaceutically acceptable salts of (i), and

(iii) prodrugs of (i); and

b) a suitable carrier.

8. A method for altering or restoring pigmentation in mammalian skin, hair, wool or fur comprising administering to a mammal in need of such alteration or restoration an effective amount of the composition of Claim 7.

9. A composition for treating a disease mediated by perturbations of the NO/cGMP/PKG pathway comprising:

a) an effective amount of one or more compounds selected from the group consisting of:

(i) bicyclic-monoterpene diols,

(ii) pharmaceutically acceptable salts of (i), and

(iii) prodrugs of (i); and

b) a suitable carrier;

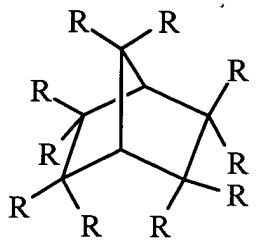
wherein said effective amount is effective to directly stimulate NO synthesis within cells.

10. A method for treating a disease mediated by perturbations of the NO/cGMP/PKG pathway in a mammal comprising administering to a mammal in need of such treatment an effective amount of the composition of Claim 9.

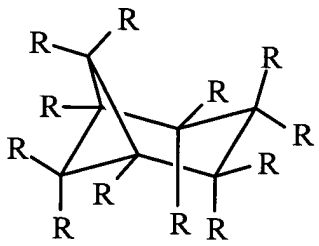
11. A composition for treating a disease mediated by perturbations of the NO/cGMP/PKG pathway comprising:

a) an effective amount of one or more compounds selected from the group consisting of:

(i) saturated C_7 to C_{50} diols having the following structure:



or



wherein

each R is independently selected from R_1; R_2; hydroxyl, methyl, hydroxymethyl, $-(CH_2)_nCH_3$, $-(CH_2)_nOH$, $-(CH_2)_nOR_1$, $-(CH_2)_n-CH(OH)-CHOH$, $-(CH_2)_n-CH(OH)-CH(OH)R_1$, $-(CH_2)_n-CH(OH)-$

$(CH_2)_n$-CH_2(OH), -$(CH_2)_n$-CH(OH)-$(CH_2)_n$-CH(OH)R_1 or -CH_2OR_1, wherein each n is independently an integer from 0-25;

each R_1 is independently selected from hydrogen; halogen; an acyl or amino acyl group containing from one atom to twenty atoms, at least one of which is carbon, nitrogen, oxygen, or sulfur; or a group containing from one atom to twenty atoms, one of which is carbon, nitrogen, oxygen, or sulfur, and

R_2 is a linear, branched or unbranched, cyclic, bicyclic or polycyclic group containing from one atom to fifty atoms, at least one of which is carbon, nitrogen, oxygen, or sulfur;

(ii) unsaturated C_7 to C_{50} diols having the above structure;

(iii) pharmaceutically acceptable salts of (i);

(iv) prodrugs of (i);

(v) pharmaceutically acceptable salts of (ii); and

(vi) prodrugs of (ii); and

b) a suitable carrier.

12. The composition of claim 11, wherein the C_7 to C_{50} diol is selected from the group consisting of:

(a) 5-norbornene-2,2-dimethanol,

(b) norbornane-2,2-dimethanol,

(c) 2,3-norbornanediol (exo or endo or cis or trans),

(d) 2,3-cis-exo-norbornanediol,

(e) 2-(propyl-1,2-diol)-norbornane,

(f) 2,7-norbornanediol,

(g) 2-hydroxy-2-norbornanemethanol,

(h) 1-(exo-2-norbornyl-)-propan-1,2-diol,

(i) 1-(endo-2-norbornyl-)-propan-1,2-diol,

(j) methyl-5-norbornene-2,3-dimethanol,

(k) 2,3-cis/exo-pinanediol ([1R,2R,3S,5R]-[-]-pinanediol and [1S,2S,3R,5S]-[+]-pinanediol]),

(l) (1R)-(-)-trans-pinane-1,10-diol,

(m) 2,3-cis/exo-bornanediol,

(n) 2,3-trans-bornanediol,

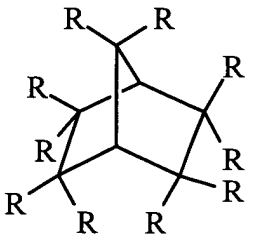
(o) camphanediol,

(p) camphenediol, and

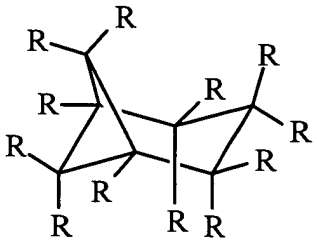
(q) 2,3-trans-pinanediol.

13. A method for treating a disease mediated by perturbations of the NO/cGMP/PKG pathway in a mammal comprising administering to a mammal in need of such treatment an effective amount of one or more compounds selected from the group consisting of:

(i) saturated C_7 to C_{50} diols having the following structure:



or



wherein

each R is independently selected from R_1; R_2; hydroxyl, methyl, hydroxymethyl, $-(CH_2)_nCH_3$, $-(CH_2)_nOH$, $-(CH_2)_nOR_1$, $-(CH_2)_n-CH(OH)-CHOH$, $-(CH_2)_n-CH(OH)-CH(OH)R_1$, $-(CH_2)_n-CH(OH)-(CH_2)_n-CH_2(OH)$, $-(CH_2)_n-CH(OH)-(CH_2)_n-CH(OH)R_1$ or $-CH_2OR_1$, wherein each n is independently an integer from 0-25;

each R_1 is independently selected from hydrogen; halogen; an acyl or amino acyl group containing from one atom to twenty atoms, at least one of which is carbon, nitrogen, oxygen, or sulfur; or a group containing from one atom to twenty atoms, one of which is carbon, nitrogen, oxygen, or sulfur, and

R_2 is a linear, branched or unbranched, cyclic, bicyclic or polycyclic group containing from one atom to fifty atoms, at least one of which is carbon, nitrogen, oxygen, or sulfur; or

(ii) unsaturated C_7 to C_{50} diols having the above structure;

(iii) pharmaceutically acceptable salts of (i);

(iv) prodrugs of (i);

(v) pharmaceutically acceptable salts of (ii); and

(vi) prodrugs of (ii).

14. The method of Claim 13 wherein the C_7 to C_{50} diol is selected from the group consisting of:

(a) 5-norbornene-2,2-dimethanol,

(b) norbornane-2,2-dimethanol,

(c) 2,3-norbornanediol (exo or endo or cis or trans),

(d) 2,3-cis-exo-norbornanediol,

(e) 2-(propyl-1,2-diol)-norbornane,

(f) 2,7-norbornanediol,

(g) 2-hydroxy-2-norbornanemethanol,

(h) 1-(exo-2-norbornyl-)-propan-1,2-diol,

(i) 1-(endo-2-norbornyl-)-propan-1,2-diol,

(j) methyl-5-norbornene-2,3-dimethanol,

(k) 2,3-cis/exo-pinanediol ([1R,2R,3S,5R]-[-]-pinanediol and [1S,2S,3R,5S]-[+]-pinanediol]),

(l) (1R)-(-)-trans-pinane-1,10-diol,

(m) 2,3-cis/exo-bornanediol,

(n) 2,3-trans-bornanediol,

(o) camphanediol,

(p) camphenediol, and

(q) 2,3-trans-pinanediol.